

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS : Breaker, et al.

SERIAL NUMBER : 09/830,905

EXAMINER : Sean McGarry

FILING DATE : August 8, 2001

ART UNIT : 1635

FOR : MULTIDOMAIN POLYNUCLEOTIDE MOLECULAR SENSORS

**Mail Stop Amendment**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**TRANSMITTAL LETTER**

Transmitted herewith for filing in the present application are the following documents:

1. Supplemental Information Disclosure Statement (2 pages), in duplicate;
2. Modified Form 1449/PTO (2 pages), in duplicate;
3. Copies of Cited References: A13-15; B2-7; C44-84;
4. Check # 19135 in the amount of \$180.00; and
5. Return Postcard.

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 542-6000, Boston, Massachusetts.

The Commissioner is authorized to charge any fees that may be due, or to credit any overpayment, to the undersigned's account, Deposit Account No. 50-0311 Ref. No. 23239-201 NATL. A duplicate copy of this transmittal letter is enclosed herewith.

Respectfully submitted,

Ivor R. Elrifi, Reg. No. 39,529  
Jennifer A. Karnakis, Reg. No. 53,097  
Attorney(s) for Applicants  
MINTZ, LEVIN, COHN, FERRIS,  
GLOVSKY and POPEO, P.C.  
Address all written correspondence to  
**Customer no.: 30623**  
Tel: (617) 542-6000  
Fax: (617) 542-2241

Date: August 30, 2004



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS : Breaker, et al.  
SERIAL NUMBER : 09/830,905 EXAMINER : Sean McGarry  
FILING DATE : August 8, 2001 ART UNIT : 1635  
FOR : MULTIDOMAIN POLYNUCLEOTIDE MOLECULAR SENSORS

**Mail Stop Amendment**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, Applicants hereby make of record the documents listed on the attached modified Form PTO-1449, as well as copies of the listed documents.

This Supplemental Information Disclosure Statement is being filed after the mailing date of the first Office Action, but before the mailing date of either a final action under 37 C.F.R. §1.113 or a Notice of Allowance under 37 C.F.R. §1.311. The fee of \$180.00 as set forth in 37 C.F.R. §1.17(p) is enclosed.

It is respectfully requested that the Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims, and sign the enclosed form PTO-1449 to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application.

By submitting this Supplemental Information Disclosure Statement, the Applicants make no representation that: (1) a search has been performed, of the extent of any search performed, or that more relevant information does not exist; (2) the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b); and (3) the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

APPLICANTS: **Breaker, et al.**  
U.S.S.N.: **09/830,905**

Notwithstanding any statements by the Applicants, the Examiner is urged to form his/her own conclusion regarding the relevance of the cited information. An early and favorable action is hereby requested.

Please charge any fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 23239-201 NATL.

Respectfully submitted,

Ivor R. Elrifi, Reg. No. 39,529  
Jennifer A. Karnakis, Reg. No. 53,097  
Attorney(s) for Applicants  
MINTZ, LEVIN, COHN, FERRIS,  
- GLOVSKY and POPEO, P.C.  
Address all written correspondence to  
**Customer no.: 30623**  
Tel: (617) 542-6000  
Fax: (617) 542-2241

Date: August 30, 2004

TRA 1947873v1

Please type a plus sign (+) in this box

+

Modified Form 1449/PTO

**INFORMATION DISCLOSURE  
 STATEMENT BY APPLICANT**

(use as many sheets as necessary)

<b>Application Number</b>	09/830,905
<b>Filing Date</b>	August 8, 2001
<b>First Named Inventor</b>	Breaker
Group Art Unit	1635
Examiner Name	Sean McGarry
Attorney Docket Number	23239-201 NATL

**U.S. PATENT DOCUMENTS**

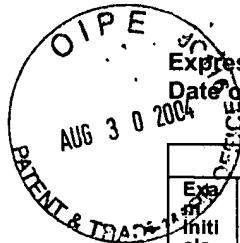
Exam Initials	Cite No.	U.S. Patent Document No.	Issue Date	Name of Patentee(s) or Applicant(s)	Class	Sub Class	Filing Date If Appropriate
	A13	5,567,588	10/22/96	Gold, et al.	435	6	
	A14	5,589,332	12/31/96	Shih, et al.	435	6	
	A15	5,834,186	11/10/98	George, et al.	435	6	

**FOREIGN PATENT DOCUMENTS**

Exam Initials	Cite No.	Foreign Patent Document Office Number	Name of Patentee(s) or Applicant(s)	Date of Publication	Translation Yes No
	B2	WO 98/08974	Intelligene Ltd.	03/05/98	
	B3	WO 99/31276	Nexstar Pharmaceuticals, Inc.	6/24/99	
	B4	WO 00/70329	Brandeis University	11/23/00	
	B5	WO 01/66721 A2	Ribozyme Pharmaceuticals, Inc.	09/13/01	
	B6	WO 02/22882 A2	Archemix Corporation	3/21/02	
	B7	WO 03/014375 A2	Archemix Corporation	2/20/03	

**OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS**

Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
	C44	Batey, et al., <i>Nat. Struct. Biol.</i> , 5(5):337-340 (1998).
	C45	Benner, et al., <i>Cold Spring Harbor Symp. Quant. Biol.</i> , 52:53-63 (1987).
	C46	Benner, et al., <i>Proc. Natl. Acad. Sci. USA</i> , 86:7054-7058 (1989).
	C47	Breaker, R.R., <i>Curr. Opin. Biotech.</i> , 7:442-448 (1996).
	C48	Breaker, R.R., <i>Curr. Opin. Chem. Biol.</i> , 1:26-31 (1997).
	C49	Breaker, R.R., <i>Nat. Biotech.</i> , 15:427-431 (1997).
	C50	Breaker, R.R., <i>Intracellular Ribozyme Applications in Principles and Protocols</i> , pgs. 1-19; Horizon Scientific Press, Wymondham UK, Rossi and Couture, eds., (1999).
	C51	Breaker, R.R., <i>Curr. Opin. Biotech.</i> , 13:31-39 (2002).
	C52	Burgstaller, et al., <i>Bioorg. Med. Chem. Lett.</i> , 6(10):1157-1162 (1996).
	C53	Carey, J., <i>Proc. Natl. Acad. Sci. USA</i> , 85:975-979 (1988).
	C54	Carmi, et al. <i>Chem. &amp; Biol.</i> , 3:1039-1046 (1996).
	C55	Denison, et al., <i>Chem. Biol.</i> , 5(6):R129-R145 (1998).
	C56	Ellington, et al., <i>Nature</i> , 346:818-822 (1990).
	C57	Famulok, M., <i>J. Am. Chem. Soc.</i> , 116(5):1698-1706 (1994).
	C58	Fan, et al., <i>J. Mol. Biol.</i> , 258(3):480-500 (1996).



OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Examiner Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
	C59	Frauendorf, et al., <i>Angew. Chem. Int. Ed.</i> , 37(10):1378-1381 (1998).
	C60	Gold, L., <i>Nat. Biotech.</i> , 20: 671-672 (2002).
	C61	Hamaguchi, et al., <i>Anal. Biochem.</i> , 294:126-131 (2001).
	C62	Hartig, et al., <i>Nat. Biotech.</i> , 20:717-722 (2002).
	C63	Hirao, et al., <i>Curr. Biol.</i> , 5(9):1017-1022 (1995).
	C64	Ho, et al., <i>Biochim. Biophys. Acta</i> , 429:461-473 (1976).
	C65	Jenne, et al., <i>Nat. Biotech.</i> , 19:56-61 (2001).
	C66	Koizumi, et al., <i>Nat. Struct. Biol.</i> , 6(11):1062-1071 (1997).
	C67	Kurz, et al., <i>Current Topics in Microbiology and Immunology</i> , Vol. 243: Combinatorial Chemistry in Biology (eds. Winnacker, et al., Springer-Verlag, Berlin, Germany) pgs. 137-158 (1999).
	C68	Li, et al., <i>Curr. Opin. Struct. Biol.</i> , 9:315-323 (1999).
	C69	Li, et al., <i>Proc. Natl. Acad. Sci. USA</i> , 96:2746-2751 (1999).
	C70	Lodmell, et al., <i>Science</i> , 277:1262-1267 (1997).
	C71	Marshall, et al., <i>Nat. Struct. Biol.</i> , 6(11):992-994 (1999).
	C72	Monod, et al., <i>Cold Spring Harbor Symp. Quant. Biol.</i> , 26:389-401 (1961).
	C73	Monod, et al., <i>J. Mol. Biol.</i> , 6:306-329 (1963).
	C74	Nerbonne, et al., <i>Nature</i> , 310:74-76 (1984).
	C75	Pan, T., <i>Curr. Opin. Chem. Biol.</i> , 1:17-25 (1997).
	C76	Potyrailo, et al., <i>Anal. Chem.</i> , 70:3419-3425 (1998).
	C77	Robertson, et al., <i>Nucl. Acids Res.</i> , 28(8):1751-1759 (2000).
	C78	Robertson, et al., <i>Nat. Biotech.</i> , 19:650-655 (2001).
	C79	Seetharaman, et al., <i>Nat. Biotech.</i> , 19:336-341 (2001).
	C80	Seiwert, et al., <i>Chem. &amp; Biol.</i> , 7:833-843 (2000).
	C81	Soukup, et al., <i>RNA</i> , 5:1308-1325 (1999).
	C82	Soukup, et al., <i>RNA</i> , 7:524-536 (2001).
	C83	Soukup, et al., <i>J. Mol. Biol.</i> , 298:623-632 (2000).
	C84	White, H.B., <i>J. Mol. Evol.</i> , 7(2):101-104 (1976).

Examiner Signature		Date Considered
--------------------	--	-----------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.

Include copy of this form with next communication to applicant.